Epiploic Appendagitis: A Diagnosis not to Forget: Case Report

Epiploik Apendagitis: Unutulmaması Gereken Bir Tanı

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ABSTRACT Epiploic appendagitis (EA) is an uncommon cause of acute and subacute abdominal pain. It is caused by either appendageal torsion or spontaneous venous thrombosis of appendageal drainage vein. It is generally confused with acute diverticulitis or acute appendicitis. EA, though not as rare as it was once thought, is an uncommon condition but it should be kept in mind in computed tomography (CT) evaluation of abdominal pain. A CT scan provides a definite diagnosis of EA and thus, unnecessary surgical intervention and antibiotics can be avoided. Here we report the case of a patient with typical features of EA; which will make a contribution on the awareness of the clinicians for EA.

Key Words: Colon; abdomen, acute

ÖZET Epiploik apendagitis (EA), akut ve subakut karın ağrısının nadir rastlanan bir nedenidir. Ya apendiks burulması ya da apendiks boşaltıcı veninde kendiliğinden venöz tromboz gelişmesi sonucu meydana gelir. Genellikle akut divertikülit veya akut apendisit ile karıştırılır. EA, bir zamanlar söylendiği kadar nadir görülmese de, yine de sık rastlanan bir durum olmayıp; karın ağrılı olguların batın BT (Bilgisayarlı tomografi) değerlendirmelerinde mutlaka akla gelmelidir. BT ile kesin tanı konulabilir, böylece gereksiz cerrahi müdahale ve antibiyotik kullanımının önüne geçilebilir. Bu yazımızda, tipik bir EA vakasını sunarak meslektaşlarımızı bu tanı konusunda uyanık tutmaya çalıştık.

Anahtar Kelimeler: Kolon; karın, akut

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Epiploic appendagitis (EA) is a rare, uncommon cause of acute and subacute abdominal pain in otherwise healthy patients.[1] It is caused by either appendageal torsion or spontaneous venous thrombosis of appendageal drainage vein.[2] EA usually originates in the sigmoid colon and rarely from other parts of the colon.[3]

Presenting symptoms in patients with EA are nonspecific. It can mimic diverticulitis or appendicitis on clinical examination. A diagnosis of EA is very infrequent due to low or no awareness of the disease among clinicians, but a well-trained and careful radiologist can make a precise and definite diagnosis of EA by computed tomography (CT).[4-10] The CT appearance of EA was first reported in 1986.[11] Typically, epiploic appendices are visible on CT only when they are inflamed or surrounded by fluid, or both.

Awareness of this entity would allow a correct diagnosis and avoid unnecessary surgical interventions. Here we report the case of a patient with

typical features of EA; which will make a contribution on the knowledge of the clinicians for EA.

CASE REPORT

A 34-year old male patient with progressive left lower quadrant pain for 2 days, presented to our emergency service. After a careful examination and some blood tests, general surgeon suspected the patient to have diverticulitis and transferred the patient to the gastroenterologist. His anamnesis revealed a history of cholecystectomy and tonsillectomy, a habit of smoking and allergy against penicilline and aspirine.

The physical examination revealed local tenderness and positive rebound in the left lower quadrant with hyperactive bowel sounds, but no general defence was detected. The white blood cell count and CRP were slightly elevated. Total urine analyses and biochemical parameters were found normal. Abdominal plain radiography and ultrasonography were reported to be normal. But the pain was still there, so we demanded an abdominal CT with contrast.

Abdominal CT revealed a 23*13 mm, fusiform fat density with peripheric dense halo, namely appendagitis epiploica inflammation in the descending colon (Figures 1A and 1B). Nonspecific bowel wall thickening at splenic flexura, descending colon and proximal transverse colon, were also noted and a colonoscopy adviced. A rectosigmoidoscopy demonstrated normal intraluminal findings, with no diverticule. The patient was diagnosed as having epiploic appendagitis and hospitalized.

The patient was managed conservatively with anti-inflammatory agents, no antibiotics were administered. Abdominal pain diminished in the following three days and he was discharged for follow-up on an outpatient basis.

DISCUSSION

Epiploic appendages are peritoneal outpouchings of adipose tissue, arranged in parallel rows along the colon. They are small structures, measuring 0.5-5 cm in length.[5,12,13] Nearly one hundred appendages adorn an average colon, extending from the caecum to the rectosigmoid.[9,10,13] More than half of the epiploic appendages are placed in the descending and sigmoid colon.[9,12-16] That is why the majority of EA cases occur in the left lower quadrant. Cecal EA is very rare.[17] Also, in our case; the problem took place in the left lower quadrant.

Every appendage is supplied with one or two small arteries from the colonic vasa recta and drained by a single vein.[10] This vasculature is very mobile and susceptible to ischemia, inflammation and necrosis; if twisting, kinking or stretching and venous thrombosis occurs.[12,13,16,18] Therefore, EA is usually thought to occur spontaneously.[13,16,19] But in some studies; obesity with a rapid weight loss, overdose exercise are described as predisposing factors for EA.[12,14,18,20]

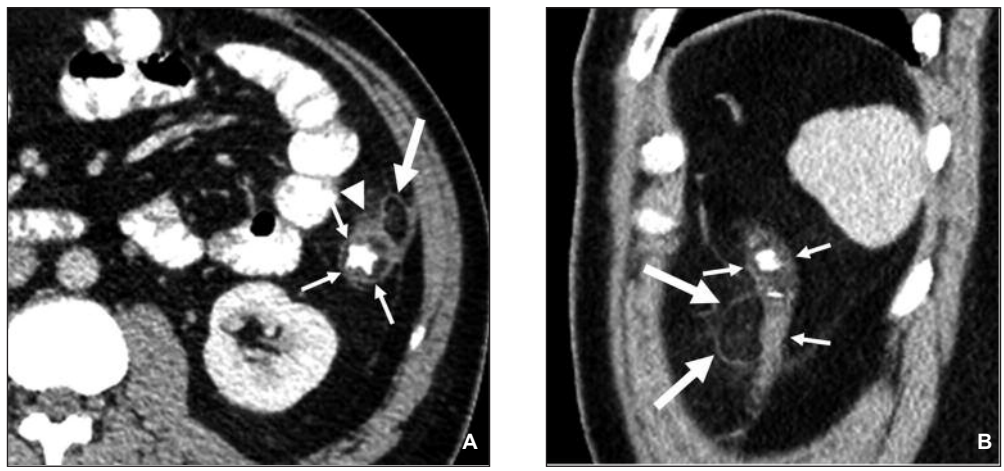

FIGURE 1: Contrast-enhanced axial **(A)** and sagittal (reformatted) **(B)** CT images demonstrate a lesion with fat attenuation with a hyperattenuating rim (thick arrows) and surrounding inflammation (arrowhead) that abut the descending colon (thin arrows), concordant with inflamed epiploic appendagitis.

Although EA can occur at any age, it is usually seen in middle-aged male patients with a peak incidence in the fourth decade.[12,15,18] Our patient was also in the fourth decade.

Localized and non-migratory abdominal pain, generally on the left side, in the absence of a severe illness; is seen in almost in every patient with EA. The anamnesis and physical examination give some clues for the exclusion of other interfering diagnoses like acute diverticulitis and acute appendicitis.

Lack of significant inflammatory response can be accepted as a characteristic criterion for the differential diagnosis of EA, especially with acute appendicitis and acute diverticulitis. This was also true for our patient.

The accurate diagnosis of EA is made by the use of radiologic evaluation.[12,13,18] Epiploic appendices cannot be seen during radiologic imaging in normal situations, unless they are inflamed or associated with gross ascites.[4,10,12,13,16,19]

As a rapid and non-invasive method, US may be very helpful, especially in non-obese and pregnant patients; if performed by experienced radiologists or with a suspicion of possible EA. The presence of a hyperechoic non-compressible ovoid structure near the colonic wall with the absence of blood flow on sonographic assessment, provides clue to the diagnosis.[21] Our radiologist reported a normal abdominal ultrasonography.

The diseases that mimic EA in a CT scan include; acute omental infarction, mesenteric panniculitis, fat containing tumors, diverticulitis and appendicitis.[4]

The criteria of CT findings specific for EA are;[4-10]

1- Oval-shaped, well-defined focus of hypodense fat tissue.

2- Thickened peritoneal ring (ring sign).

3- Periappendageal fat stranding (inflammatory change).

4- Central dot sign (thrombosed vessel).

Our diagnosis was also revealed by an abdominal CT.

The symptoms usually resolve spontaneously in one week.[2] The treatment for EA is conservative with pain-killers and without antibiotics. We followed the same principles and the patient is doing fine now.

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